

What is claimed is:

1. A data transfer control device for data transfer through a bus, comprising:  
a rewriter which loads and writes information transferred through a first bus  
5 into a rewrite area of a non-volatile memory storing at least one of device information  
and data transfer control program information; and  
a rewriter activation section which causes the rewriter to start processing when  
a second bus is detected to have no connection to any device.
- 10 2. The data transfer control device as defined in claim 1,  
wherein the detection of whether or not the second bus is connected to a second  
device is based on the result of an access to a register of the second device.
- 15 3. The data transfer control device as defined in claim 1,  
wherein the rewriter writes information into the rewrite area by performing  
data transfer between the data transfer control device and a first device connected to the  
first bus in a mode of loading information to the rewrite area.
- 20 4. The data transfer control device as defined in claim 1,  
wherein data transferred from a first device through the first bus is transferred  
to a second device through the second bus, and data transferred from the second device  
through the second bus is transferred to the first device through the first bus, in an  
ordinary operating mode that differs from a mode of loading information to the rewrite  
area.
- 25 5. The data transfer control device as defined in claim 1,  
wherein the device information includes identification information that is

specific to an electronic instrument in which the data transfer control device is embedded.

6. The data transfer control device as defined in claim 1,

5 wherein the non-volatile memory has an area in which is stored information for indicating whether or not the data transfer control program information has been written correctly into the rewrite area.

7. The data transfer control device as defined in claim 1, wherein:

10 the non-volatile memory has an area in which is stored rewriter processing setting information for setting whether processing by the rewriter is enabled or disabled; and

the rewriter processing setting information is set to enabled in an initial state but is set to disabled at the end of processing by the rewriter.

15 8. The data transfer control device as defined in claim 1,

wherein the first bus transfers data conforming to a first interface standard, and the second bus transfers data conforming to a second interface standard.

20 9. An electronic instrument comprising:

the data transfer control device as defined in claim 1; and  
a second device connected to the second bus.

10. A program for causing a data transfer control device to function as:

25 a rewriter which loads and writes information transferred through a first bus into a rewrite area of a non-volatile memory storing at least one of device information and data transfer control program information; and

a rewriter activation section which causes the rewriter to start processing when a second bus is detected to have no connection to any device.

11. The program as defined in claim 10,

5 wherein the detection of whether or not the second bus is connected to a second device is based on the result of an access to a register of the second device.

12. The program as defined in claim 10, wherein:

10 the non-volatile memory has an area in which is stored rewriter processing setting information for setting whether processing by the rewriter is enabled or disabled; and

the rewriter processing setting information is set to enabled in an initial state but is set to disabled at the end of processing by the rewriter.

15 13. A method of fabricating an electronic instrument having a data transfer control device and a second device connected to a second bus of the data transfer control device, the method comprising:

20 disconnecting the second device from the second bus to start rewriter processing that is activated when the second device is disconnected from the second bus;

loading and writing information transferred through a first bus into a rewrite area by the rewriter processing, the rewrite area storing at least one of device information and data transfer control program information; and

25 connecting the second device to the second bus after the writing of the information into the rewrite area.

14. The method of fabricating an electronic instrument as defined in claim 13,

wherein the device information includes identification information that is specific to an electronic instrument in which the data transfer control device is embedded.